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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Vexler et al.

Serial No:

09/585,072

Confirmation No.:

5741

Filed:

June 1, 2000

For:

TWISTED PAIR CABLE WITH DUAL LAYER INSULATION

HAVING IMPROVED TRANSMISSION CHARACTERISTICS

Examiner:

W. Mayo

Art Unit:

2831

COMMISSIONER FOR PATENTS WASHINGTON, D.C. 20231

Sir:

## AMENDMENT AND RESPONSE TO NOTICE OF NON-COMPLIANCE

In response to the Notice of Non-Compliance mailed March, 18, 2002, Applicant hereby submits clean versions of the replacement paragraphs pursuant to 37 CFR 1.121(b)(1)(ii) and marked up versions of the replacement paragraphs pursuant to 37 CFR 1.121(b)(1)(iii).

## PRELIMINARY MATTERS

Please change the Attorney's Docket No. recorded for this application to N00401 / 70005 GSE/INB.

For purposes of the Patent Application Information Retrieval (PAIR) system, please associate this application with customer number 23628.

Serial No. 09/585,072



Art Unit: 2831 PR 15 PRIS

Please replace the paragraph beginning on page 2, line 22 "There are already ..." with the

paragraph below:

There are already in the marketplace several cable designs that claim to meet and even exceed the proposed Category 6 specifications. The first cable design that claims gigabit capability was developed by Belden Wire & Cable Company (U.S. Pat. No. 5,606,151 to Siekierka et al.) and uses the joining of the two insulated conductors in a pair by means of an adhesive or by co-extruding the two insulated conductors with a very small joining web. This device is meant to mainly improve the longitudinal impedance uniformity to less than +/-15 ohm and, as a result, to minimize return loss impairments of the resulting 4 pair twisted cable. The claimed reason for the observed reduction in impedance irregularities is explained by the fact that cyclical and random irregularities that can be imparted in the twisted pair during the twisting process due to differences in twisting tension are eliminated when the bonded pairs are twisted together. It is also claimed that the cable resists deformation during process handling and installation.

A marked copy of this replacement paragraph is included as Appendix 1.

Please replace the section entitled "Abstract" on page 14 with the section below:

## **ABSTRACT**

The present invention includes a twisted pair cable which eliminates many of the difficulties inherent in the cables of the prior art while substantially reducing both cross-talk impairments and impedance irregularities in a cost competitive manner respectful of the EFA/TIA specifications. The twisted pair cable of the invention includes a plurality of pairs, each of the pairs having two conductors. Each of the conductors is covered with an inner layer insulator and an outer layer insulator. The invention lies in positioning the conductors within the insulation layers so that the conductors are eccentric with respect to the overall insulation of the inner and outer layer insulators. The present invention also includes a method for making the same.

A marked up copy of this replacement Abstract is included as Appendix 2.